STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FILED
01-15-08
11:05 AM

January 15, 2008

Agenda ID #7288
Quasi-Legislative

TO PARTIES OF RECORD IN RULEMAKING 06-03-004

This is the proposed decision of Commissioner Michael R. Peevey. It will not appear on the Commission's agenda for at least 30 days after the date it is mailed. The Commission may act then, or it may postpone action until later.

When the Commission acts on the proposed decision, it may adopt all or part of it as written, amend or modify it, or set it aside and prepare its own decision. Only when the Commission acts does the decision become binding on the parties.

Parties to the proceeding may file comments on the proposed decision as provided in Article 14 of the Commission's Rules of Practice and Procedure (Rules), accessible on the Commission's website at www.cpuc.ca.gov. Pursuant to Rule 14.3, opening comments shall not exceed 15 pages.

Comments must be filed either electronically pursuant to Resolution ALJ-188 or with the Commission's Docket Office. Comments should be served on parties to this proceeding and parties to Rulemaking 04-03-017 in accordance with Rules 1.9 and 1.10. Electronic and hard copies of comments should be sent to ALJ Dorothy J. Duda at dot@cpuc.ca.gov and the assigned Commissioner's advisor Andrew Schwartz at as2@cpuc.ca.gov. The current service lists for this proceeding are available on the Commission's website at www.cpuc.ca.gov.

/s/ ANGELA K. MINKIN
Angela K. Minkin, Chief
Administrative Law Judge

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Attachment

Decision **PROPOSED DECISION OF COMMISSIONER PEEVEY**
(Mailed 1/15/2008)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues.	Rulemaking 06-03-004 (Filed March 2, 2006)

OPINION DENYING PETITION BY FUELCELL ENERGY TO MODIFY DECISION 04-12-045

1. Summary

This decision denies the petition by FuelCell Energy (FCE) to raise the cap on incentives to individual projects that apply for incentives through the Commission Self-Generation Incentive Program (SGIP).

2. Background

In Decision (D.) 01-03-073, the Commission authorized the SGIP to encourage the development and commercialization of new distributed generation (DG) technologies.[1] Under the SGIP, certain entities qualify for financial incentives to install distributed generation to serve some portion of a customer's onsite load. In subsequent orders, the Commission refined the

[1] "Self-generation" refers to distributed generation technologies (microturbines, small gas turbines, wind turbines, photovoltaics, fuel cells and internal combustion engines) installed on the customer's side of the utility meter that provide electricity for a portion or all of that customer's electric load. In D.06-01-024, the Commission directed that

Footnote continued on next page

program, taking actions such as adopting a reliability requirement, developing renewable fuel criteria, and increasing the maximum project size eligible for incentives.

With regard to project size, the Commission initially limited both the size of eligible projects and incentives to 1 megawatt (MW), reasoning that the size limit "represents a fairly large installation for a single customer site and, at the same time, will not use up an unreasonable amount of program funding." (D.01-03-073, at 29.) In a subsequent order, the Commission increased the project size eligible to participate up to 5 MW to "allow developers, customers, utilities and ratepayers to receive cost savings achieved by larger projects." (D.04-12-045 at 9.) Despite raising this maximum project size, the Commission retained the cap on incentives at 1 MW due to concerns about depleting limited SGIP budgets. (*Id.*)

3. Petition for Modification

On July 25, 2007, FCE filed its petition requesting the Commission modify D.04-12-045 to increase the limit of incentive payments available under the SGIP program from the current cap of 1 MW to 3 MW.[2] Although projects up to 5 MW are eligible for participation in SGIP, incentives are limited to 1 MW. FCE contends this has suppressed participation by larger fuel cell projects in the

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starting in 2007, photovoltaic self-generation projects would be separately funded through the California Solar Initiative, rather than the SGIP.

[2] FCE filed its petition in this docket, Rulemaking (R.) 06-03-004 which is the successor proceeding to R.04-03-017, the docket in which D.04-12-045 was issued. In compliance with direction from the Commission, FCE re-served its petition to modify D.04-12-045 on all parties to the original rulemaking, R.04-03-017. This service was completed on July 31, 2007, which extended the filing date for comments on the petition to August 30, 2007.

program. FCE argues an increase in the incentive cap to 3 MW is needed to stimulate the much needed market transformation for affordable fuel cell technology and other renewable distributed generation applications that are only economic at a larger scale. FCE also maintains that the modification would result in new projects that would deliver substantial reductions in greenhouse gases.

In its petition, FCE contends the market for fuel cells in California is significantly constrained, particularly in the waste treatment market, by the 1 MW limit. Based on feedback from operators of industrial facilities and wastewater treatment plants, FCE reasons the modification will result in significant deployments of new fuel cell power plants at these sites. The most prominent emerging market sector is municipal wastewater treatment. Specifically, FCE contends that fuel cells' high electrical efficiency enables them to deliver almost twice the electrical output for each unit of gas consumed. In a declaration filed with its petition, FCE's witness states that wastewater treatment plant operators have expressed an interest in fuel cell technology as an alternative to combustion technologies. Further, the witness states that he has had conversations with wastewater treatment plant owners who have tried but failed to cost-justify installation of fuel cells at larger facilities without incentives.

FCE further justifies its modification request with the reasoning that raising the incentive cap will result in new projects that would deliver substantial greenhouse gas (GHG) reductions in addition to peak electricity demand reductions. According to FCE, renewable fuel cells can provide high GHG reduction by capturing and using biogas in lieu of its use in either flares or combustion. Thus, FCE argues, larger fuel cell projects, particularly at municipal wastewater plants, could benefit ratepayers by maximizing returns on local tax dollars and increasing the reduction in combustion emissions, with associated environmental benefits. Moreover, FCE contends that increasing the cap on SGIP incentives from 1 to 3 MW could lead to reduced product costs via larger production volumes, thus enabling market transformation for fuel cells.

FCE maintains the only down side to its request is the potential that program funds could be depleted more rapidly than they would otherwise. To offset this concern, FCE suggests the Commission authorize additional SGIP funding to support more projects, or consider other measures to ensure participation by small projects.

According to Rule 16.4(d) of the Commission's Rules of Practice and Procedure, petitions for modification must be filed within one year of a Commission decision. FCE states that its petition, filed more than two years after issuance of D.04-12-045, is based on experience gained, particularly with larger customers, over the six year history of SGIP, and therefore could not have been filed earlier. UTC Power Corporation (UTC) objects to FCE's late filed petition to modify, asserting that FCE has not adequately justified its late submission because potential customers of every size have existed since SGIP's inception. We find that FCE has adequately justified the late filing of its petition because information pertaining to larger customers and the market demand for fuel cells is newly available. Thus, we will address FCE's petition on its merits.

4. Comments on Petition

Responses to the petition were filed by California Center for Sustainable Energy (CCSE), Center for Energy Efficiency and Renewable Technologies (CEERT), Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and UTC. In addition, responses were filed by Alliance Power Inc., ApolloPower Inc., California State University Northridge, Carollo Engineers

P.C., Chevron Energy Solutions Company (CES), Gills Onions Rio Farms, HydroGen Corporation, Manuel Bros., Inc., Marubeni Corporation, MISCO, National Fuel Cell Research Center, Powerhouse Energy LLC, Silverwood Energy Inc., and Starwood Hotels and Resorts Worldwide Inc. We refer to this latter group collectively as the "fuel cell supporters" because though the comments were filed individually, they were strikingly similar, and in some cases identical to each other.

The fuel cell supporters state strong support for the petition, contending the increase in project size eligible for incentives is needed to cost-effectively develop the biogas market for fuel cell technology at waste treatment plants, landfills, and other host facilities that need larger scale projects. They allege that raising the incentive cap for both natural gas and renewable biogas supplied fuel cell technologies will allow larger users of electric and thermal energy to implement more efficient technologies which utilize less fuel. They contend there is an increasing market demand for DG between 1 and 3 MW to meet the requirements of end user customers. According to the fuel cell supporters, if the Commission raised the incentive cap to 3 MW, this would help encourage innovation and expansion of DG applications at a time when the state needs renewable DG and efficient use of fuel stocks. These parties claim the current 1 MW cap on incentives deters larger installations because they are uneconomic and too risky to develop.

Moreover, these parties contend that large fuel cell projects provide benefits to utility systems in California such as decreasing greenhouse gas emissions per megawatt hour of baseload electricity and thermal load supplied, reducing transmission and distribution grid constraints, reducing the need for new generation capacity, and eliminating emissions from combustion-fired power generation that would otherwise be used if renewable biogas or natural gas supplied fuel cell projects are not implemented. The fuel cell supporters further contend that if the Commission is concerned that raising the incentive cap will negatively affect SGIP participation by smaller DG projects, the Commission can monitor this, allocate money between large and small projects, or increase the SGIP budget.

UTC opposes FCE's petition, arguing that the Commission has denied past requests to raise the 1 MW cap on the basis that an increase might cause large projects to deplete the SGIP budget. UTC contends the 1 MW cap should be maintained to ensure the broad distribution of SGIP funds. According to UTC, increasing the cap beyond 1 MW would minimize the overall number of projects funded by SGIP, in opposition to the Commission's earlier stated goal of making SGIP funds available to a broad range of projects and customers.

Moreover, UTC contends the SGIP is successful at current incentive levels, with program data provided by FCE in its petition indicating that 2006 saw the highest level of fuel cell participation in SGIP to date.[3] Thus, UTC concludes that maintaining current incentive levels will support more projects and increase fuel cell market penetration. UTC argues that the overall number of fuel cells manufactured promotes economies of scale that lead to price reductions. Thus, a higher number of smaller projects promote competition and innovation in clean energy more than incentives limited to a few large projects.

CEERT supports the petition as it relates to renewable fuel cells, and supports the recommendation for increased SGIP funding. CEERT also proposes

[3] UTC cites statistics provided by FCE on p. 4 of its July 25, 2007 petition.

that to ensure smaller installations receive incentives, the Commission could require installations over 1 MW to wait until the close of the fiscal year to receive incentives for the portion of their project over 1 MW. In reply, FCE opposes this request as creating too much uncertainty for fuel cell developers and undermining the ability to obtain project financing.

CCSE, PG&E and SCE support the petition, but only with respect to fuel cells operating on renewable fuel. SCE contends that raising the incentive cap for non-renewable technologies risks depleting program funds. PG&E suggests a lower incentive level of $2.50/watt for incentives over the first MW to extend the SGIP budget, and it also recommends permitting the increased incentive cap on a two-year pilot basis. CCSE also supports a tiered incentive approach to prevent a small group of large customers from monopolizing program funds.

In response to UTC, FCE states that the current 1 MW cap inhibits development of the market for larger installations. FCE proposes consideration of conditions to ensure funds are fairly allocated to large and small DG, such as budget allocations between large and small customer classes with corresponding discretion to shift funds, or scaled incentives as suggested by PG&E and CCSE. FCE supports the suggestion that any increase in the incentive cap should apply to renewable projects only.

5. Discussion

The key issue raised by FCE's petition is whether the Commission should deviate from prior decisions that created and retained a 1 MW cap on incentives to any one project. If we raise the incentive limit beyond 1 MW, as FCE requests, this could allow a large portion of each utility's SGIP budget to go towards a single project, or at most, a few large projects.

FCE argues the market for fuel cells is constrained by the 1 MW limit and that "larger projects are better able to deliver cost-effective solutions to the wastewater operator." (FCE Petition, 7/25/07, p. 6.) FCE also suggests that increasing the incentive cap will allow fuel cell manufacturers to reduce product costs via larger production volumes as they realize economies of scale in raw material procurement and production labor when a higher volume of fuel cells are manufactured and sold. (Id., p. 8.) Despite these assertions, FCE provides no financial information or analysis to support these assertions or explain why increased incentives are required to make projects viable. FCE provides no information on the cost of a typical project in relation to the current incentive cap or in relation to its request to triple this cap. Further, it is unclear why supporting a few larger projects would increase production volumes and drive economies of scale more than supporting a greater number of smaller projects. If we granted FCE's petition, it would not necessarily yield additional capacity, just fewer projects. Furthermore, this could actually limit competition in the fuel cell industry by allowing one provider to lock-up virtually the entire incentive budget.

FCE describes its request as a "modest increase" in SGIP incentives, but in our view, a request to triple incentives to any one project is not modest. Currently, an eligible DG project can receive up to $4.5 million in SGIP incentives ($4.50 per watt multiplied by 1 million watts). We are asked to accept the assertion that an individual project requires subsidies of three times this amount, or $13.5 million, or it will not be built.

We will deny FCE's petition because it does not contain information to persuade us that incentives of more than $4.5 million are necessary to any one project. Moreover, we remain concerned that without this cap, a few projects could deplete a program administrator's entire annual budget. San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas) have annual SGIP budgets of $11 million and $8 million respectively. If we raised the maximum subsidy to individual projects to $13.5 million, as FCE suggests, this could limit the ability of either SDG&E or SoCalGas to fund more than one DG project in a given year.

Some parties suggest methods for limiting the amount paid to one project, or even raising the SGIP total budget. While we appreciate PG&E's suggestion to pay lower incentives for capacity above 1 MW, neither FCE's petition nor the comments provide any basis to determine whether the economics of fuel cells improve as a function of project scale. Given that FCE has not met its burden of proving why a tripling of the incentives to any one project is necessary or a basis for determining an appropriate incentive level for larger projects, we see no need to consider these suggestions. Moreover, we will not consider an increase in the annual SGIP budget at this time, in light of recent legislative restrictions on the technologies we can fund through SGIP.[4] Our Energy Division staff analyzed historical SGIP data to determine the percent of project cost typically covered by SGIP incentives. This review indicates that from 2001 through October 2007, SGIP incentives have covered an average of almost 48% of total fuel cell project costs. Once again, FCE's petition does not provide any information on why we need to raise the incentive cap or the SGIP budget and provide higher subsidies to specific fuel cell projects.

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[4] Pursuant to Pub. Util. Code § 379.6, the SGIP may only fund wind and fuel cell DG projects effective January 1, 2008.

Our denial of FCE's petition does not mean that large fuel cell installations cannot be developed. As before, fuel cell projects up to 5 MW may receive SGIP incentives, but an individual project will not be subsidized over 1 MW in capacity, i.e., more than $4.5 million. We also note that under Assembly Bill (AB) 1613,[5] eligible combined heat and power systems up to 20 MW, such as fuel cells, may be eligible to benefit from provisions of the law requiring utilities to purchase excess electricity from these plants. The Commission is authorized under AB 1613 to require this purchase and expects to review the matter in a subsequent proceeding. Thus, other programs in addition to SGIP may help support large fuel cell projects.

6. Comments on Proposed Decision

The proposed decision of Commissioner Michael R. Peevey in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on ______________________, and reply comments were filed on ______________________ by ______________________.

7. Assignment of Proceeding

President Michael R. Peevey is the assigned Commissioner and Dorothy J. Duda is the assigned Administrative Law Judge for this portion of this proceeding.

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[5] Chapter 713, Statutes of 2007.

Findings of Fact

1. Under the SGIP, projects up to 5 MW in size can apply for incentives, but incentives will be given only up to 1 MW.

2. The Commission has denied requests to increase the 1 MW incentive limit on the basis that this could deplete the SGIP budget.

3. FCE's petition does not contain any financial information on total project costs to explain why subsidies over $4.5 million are needed.

Conclusions of Law

1. Increasing the SGIP 1 MW incentive limit would decrease the number of projects funded by SGIP.

2. FCE has not provided sufficient justification for the Commission to raise the prior 1 MW incentive limit.

O R D E R

IT IS ORDERED that:

1. The petition to modify Decision (D.) 04-12-045 filed by FuelCell Energy on July 25, 2007 is denied.

2. This decision shall be served on the service list for Rulemaking 04-03-017 in which D.04-12-045 was issued.

This order is effective today.

Dated _____________________________, at San Francisco, California.

INFORMATION REGARDING SERVICE

I have provided notification of filing to the electronic mail addresses on the attached service lists (also served on R.04-03-017).

Upon confirmation of this document's acceptance for filing, I will cause a Notice of Availability of the filed document to be served upon the service list to this proceeding by U.S. mail. The service list I will use to serve the Notice of Availability of the filed document is current as of today's date.

Dated January 15, 2008, at San Francisco, California.

/s/ FANNIE SID

Fannie Sid